San Joaquin Valley Bioregion

The San Joaquin Valley Bioregion in the heart of California is the state's top agricultural producing region, sometimes called "the nation's salad bowl" for the great array of fruits and vegetables grown in its fertile soil. The bioregion is bordered on the west by the coastal mountain ranges. Its eastern boundary joins the southern two-thirds of the Sierra Bioregion, which features Yosemite, Kings Canyon, and Sequoia National Parks.

Location, Cities, People

Eight counties comprise the San Joaquin Valley Bioregion, including all of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, Tulare counties. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Some of California's poorest cities are in Fresno, Kern, and Tulare counties. At its northern end, the San Joaquin Valley bioregion borders the southen end of the Sacramento Valley bioregion. To the west, south, and east, the bioregion extends to the edges of the valley floor. Native people of the bioregion include the Mono and Yokut Indians. Native lands include the Tule River Indian Reservation in Tulare County, Cold Springs Rancheria, and Table Mountain and Big Sandy Reservations in Fresno County, and Santa Rosa Rancheria in Kings County.

Tourist Attractions, Industries

The San Joaquin Valley is California's leading agricultural producing bioregion, and five of its counties — Fresno, Kern, Tulare, Merced, and Stanislaus— rank among the state's top 10 counties in farm production value. Oil and gas also are important industries in the San Joaquin bioregion. The deepest wells and about half of the largest oil fields are found in Kern County, as is the Elkhorn Hills Naval Petroleum Reserve. Lemoore Naval Air Station west of Visalia also is in this bioregion.

Climate, Geography

Well-suited for farming, the bioregion is hot and dry in summer with long, sunny days. Winters are moist and often blanketed with heavy fog. The broad, flat valley is ringed by the Diablo and Coast Ranges on the west and the Sierra Nevada foothills on the east. Habitat includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. The growth of agriculture in the Central Valley has converted much of the historic native grassland, woodland, and wetland to farmland.

The major river is the San Joaquin, with tributaries of the lower Stanislaus, Tuolumne, Merced, and Fresno rivers. The California Aqueduct extends the entire length of the bioregion. The southern portion of the bioregion includes the Kings, Kaweah, and Kern rivers, which drain into closed interior basins. No significant rivers or creeks drain into the valley from the Coast Range.

Plants, Wildlife

Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about 5 percent. Precious remnants of this vanishing habitat are protected in the San Joaquin Valley Bioregion in publicly owned parks, reserves, and wildlife areas. Seasonal wetlands are found at the Kern National Wildlife Refuge west of Delano, owned by the U.S. Fish and Wildlife Service. It attracts a variety of ducks, shorebirds, and song birds, as well as peregrine falcons.

The Tule Elk State Reserve west of Bakersfield, owned by the state Department of Parks and Recreation, features the habitat of the tule elk — natural grassland with ponds and marshes. The reserve sustains four endangered species — the San Joaquin kit fox, blunt-nosed leopard lizard, San Joaquin antelope squirrel, and Tipton kangaroo rat — the threatened plant Hoover's woolystar, and other rare species, such as western pond turtles, tricolored blackbird, and northern harrier. Endangered species of the bioregion also include the California tiger salamander, Swainson's hawk, and giant and Fresno kangaroo rat. Other rare species include

the western yellow-billed cuckoo and valley elderberry longhorn beetle.

About one-fifth of the state's remaining cottonwood and willow riparian forests are found along the Kern River in the South Fork Wildlife Area. Great blue herons, beavers, coyotes, black bears, mountain lions, red-shouldered hawks, and mule deer can be seen in the wildlife area. Other wildlife viewing sites are Millerton Lake State Recreation Area west of Madera, Little Panoche Wildlife Area near Los Banos, and the Valley Grasslands of Merced County, which attract 500,000 to 1 million birds each winter to lands owned by the state Departments of Fish and Game and Parks and Recreation, Fish and Wildlife Service, and privately. The San Luis Dam and Reservoir area, jointly operated by the state Department of Water Resources and U.S. Bureau of Reclamation, draws wintering bald eagles, abundant ducks, gopher snakes, San Joaquin kit foxes, and black-tailed deer.

Rare plants in the bioregion include Mason's lilaeopsis, San Joaquin woollythreads, and California hibiscus. For a complete list of the San Joaquin Valley Bioregion's federal and state endangered, threatened and rare species, please refer to the chart at the end of this bioregional section.

CURRENT CONSERVATION INITIATIVES

Negotiations are underway to gain long-term development protection for a parcel of prime Fresno farmland, one of the first four projects proposed for the ***Agricultural Land Stewardship Program,*** *a funding program that combines state, federal and local land preservation funds.*

The Fresno property, located within the city limits on the south side of the San Joaquin River, is rich in walnuts and pistachios, stands to gain a "conservation easement" that would ensure its continuing agricultural viability. The deal would transfer development rights on the property to the American Farmland Trust, a national non-profit organization dedicated to the conservation of agricultural lands and the landowners would continue to own and farm the land.

The project, is an example of the state Agricultural Land Stewardship Program (ALSP). ALSP is part of a state effort to assist cities, counties, and nonprofit land trusts keep farmland in production at a reduced cost to landowners. The program is an active step to help slow the loss of farmland to development by providing incentives to landowners that keep their land in production and thereby help to preserve the rural economy and lifestyle of the region.

Under ALSP, landowners receive a one-time payment in exchange for the development rights on their land. The payment is based upon an appraisal of the land that determines the difference between the land's development value and its agricultural value. The farmer agrees to keep the land in agricultural production in perpetuity, with the stipulation that the agreement can be reviewed after 25 years.

In addition to the Fresno project, ALSP is facilitating funding for three other proposed parcels — two farms in Monterey County and one in Solano County. The California Department of Conservation, which administers ALSP, is completing projects in Yolo and Ventura counties as well. ALSP serves as a complement to the much larger Williamson Act Program, which provides tax incentives to landowners who agree to keep their land in agricultural or open space use under rolling 10-year contracts.

The ALSP Act provides funding for cities, counties and nonprofit land trusts to purchase conservation easements on local farmlands. These farmland protection grants help to protect prime farmland on the urban fringe from future urban development. Local government and land trusts must provide matching funds equal to at least 5 percent of the grant or 10 percent of the easement's assessed value. Both programs are administered by the California Department of Conservation, within the Resources Agency.

For more information contact: Charles Tyson, California Department of Conservation at (916) 324-0850.

The ***San Joaquin River Management Program*** *has local and state agencies working together to protect more than 800 acres along*

the San Joaquin River. This project is an impressive example of how partners can leverage complimentary abilities and resources to protect open space for the benefit of the whole community.

The once-vigorous San Joaquin River and its tributaries have great social, environmental, and economic values. Over the years, it has provided the water for the farms, cities, industries, fish and waterfowl, hydroelectric power, recreation, and navigation of the region. In recent time, however, the health of the river has declined as years of development have taken their toll. Sediment has filled the channels reducing flood-control capacity and hampering fish migration for spawning. Weeds and brush have replaced native vegetation, and irrigation drainage, urban runoff, and sewage plant discharges have degraded the water quality. Even the Spring-run chinook salmon which once numbered in the tens of thousands is now extinct in the San Joaquin River and its tributaries.

In the mid 1980s, citizens of Fresno and Madera counties began to talk about how they could work together to preserve the river and provide opportunities for the public to enjoy this extraordinary natural. In 1988, the the San Joaquin River Parkway and Conservation Trust was founded to pursue this goal and to create a parkway along the river's edge. Recognizing that a coordinated effort was going to be needed to bring about success, residents then lobbied for legislation that would create an entity to represent the multiple interests of different agencies that had an interest in the river.

In 1990, legislation was passed authorizing the San Joaquin River Management Program (SJRMP) and an advisory council and action team of local, state, and federal agencies, water, irrigation, flood, and reclamation districts, environmental organizations and private citizens. The advisory council's task was to identify the problems of the river and recommend ways to improve flood protection, water quality and supply, fisheries, recreation, and wildlife habitat. The advisory council produced a plan recommending more than 80 specific projects, studies and acquisitions to help revive the San Joaquin River system.

One of the recommendations was for the formation of the San Joaquin River Conservancy, a state agency, that could coordinate the many stakeholders involved and uniformly manage this resource that runs through many agency jurisdictions. Working together, the River Parkway and Conservation Trust and the San Joaquin River Conservancy have successfully protected more than 800 acres. The protected lands have been added to the parkway as a series of natural reserves known collectively as the San Joaquin River Ecological Reserve, which are jointly managed by the Wildlife Conservation Board and the Department of Fish and Game.

The River Parkway and Conservation Trust seeks to protect specific aspects of the area. For example, there should be no change in land use for floodplain areas, riparian zones, wetland, archeological and historical sites, sand and gravel resources, and setbacks for sensitive areas. The parkway provides many educational benefits, including an outdoor environmental education program that has served over 30,000 students through an interdisciplinary program of field studies. The River Parkway and Conservation Trust also trained hundreds of teachers and recently started school visits to reach more students, while the California Department of Fish and Game offers nature walks in the San Joaquin River Ecological Reserve.

The objective is to create about five thousand acres of parkway on both sides of the river, with a trail along the entire length. Lands for public use will be acquired from willing sellers or donors. Acquisition and trail funding have come from a variety of sources, including the California Parks and Wildlife Act of 1988, Fresno sales tax, the Intermodal Surface Transportation Enhancement Act (ISTEA), and private contributors, including matching funds.

For further information contact: San Joaquin River Conservancy at (209) 822-2877; San Joaquin River Parkway and Conservation Trust at (209) 248-8480.

*The **Great Valley Center** is committed to building support for California's Central Valley and assisting in the process of planning for the 21st century. Part of the commitment includes using technology to share information that can*

be used to aid local decision-making. The Great Valley Center is a critical component of the region's effort to prepare for growth and change in the next century.

The Great Valley Center (GVC) was established to foster collaboration, seek solutions, and be a voice for California's Great Central Valley. It is the first non-governmental organization to approach the Central Valley as a region and to promote the integration of economic, social, and environmental goals. GVC aims to assist in developing a future for the Central Valley that is healthy and sustainable.

By providing citizens, local organizations, and local governments with access to a wide range of information and resources, GVC is working to ensure a livable future for the Central Valley, facilitate the dialogue that needs to take place, and support the participation of the many interests of the Valley.

Creating job opportunities for a growing and diverse population, sustaining agricultural production, preserving and enhancing natural resources, attracting economic activity that is globally competitive, and building livable communities are the critical challenges for the Valley. To that end, GVC aims to provide financial grants and technical assistance to local efforts, as well as make available the most up-to-date environmental and economic data to decision-makers, citizen groups, and local governments.

Each year, GVC awards grants to non-profit groups, community organizations and local governments throughout the Great Central Valley. The LEGACI program (Land Use, Economic Development, Growth, Agriculture, Conservation, and Investment) is designed to support the economic, social, and environmental well-being of California's Central Valley. Ranging in size from $500 to $50,000, the awards represent a commitment of $618,000 to various local governments and community groups throughout the Great Central Valley.

The Center is supported by philanthropic foundations, corporations, and individuals who recognize the importance of California's Central Valley and the broad array of challenges it faces.

For more information contact: Carol Whiteside, Executive Director, Great Valley Center at (209) 522-5103.

*The **Interagency Vernal Pool Initiative** is working to preserve rare vernal pools in the region and throughout the state. Eleven agencies have prepared a framework agreement to streamline the overlapping regulatory functions of the permitting process and will serve as the basis for a coordinated, cooperative, ecosystem-based approach to conserving and managing this rare resource.*

Vernal pools are a topic filled with conflict. Questions about how many and which ones should be preserved, and at what cost to developers, are ongoing. Conservationists tend to favor preserving as many as possible, particularly larger, vernal pool complexes with greater ecological value in areas most likely to sustain them. But what about vernal pools that lie in the path of urbanization and are vulnerable to development activities even if the pools themselves are not destroyed? Is the preservation of such threatened pools worth economic loss to landowners?
As wetlands, vernal pools are protected by an array of agencies and statutes, including the Clean Water Act and Endangered Species Act, which can create a confusing and frustrating regulatory maze for property owners. Landowners cannot dredge, fill, or otherwise degrade vernal pools without a permit from the U.S. Army Corps of Engineers, a process that also involves other agencies. Mitigation usually is required when permission is granted for vernal pools to be filled, particularly if listed species dwell there.

To find out how much vernal pool habitat remains, a federal-state interagency assessment team is compiling the latest information, assisted by a scientific peer review group of academic and consultant biologists and soil scientists and computerized geographic information system (GIS) data layering. The California Department of Fish and Game's Natural Heritage Division, with funding from the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service, is assembling aerial photos and species data on vernal pool habitats using GIS that will provide information on the amount and types of vernal

pools remaining.

The 11 agencies that regulate or protect vernal pools signed a framework agreement, the Interagency Vernal Pool Stewardship Initiative, to streamline overlapping regulatory functions of the permitting process and serve as the basis for a coordinated, cooperative, ecosystem-based approach to conserving and managing vernal pools. The agreement calls for fostering an ecosystem-based approach to protecting vernal pools that permits necessary economic development.

The goals of the initiative are to minimize loss and degradation of vernal pools, protect diverse vernal pool ecosystems, foster an ecosystem-based approach to protection while permitting necessary economic development, increase regulatory effectiveness and consistency, provide greater certainty for applicants and communities, continue to develop reliable data on remaining habitat, build partnerships, and manage vernal pools to lessen the need for endangered species listings and to promote recovery.

It also acknowledges the role of agriculture in protecting open space and requires the signatories to consult the California Department of Food and Agriculture on aspects that affect ranchers' concerns. The agreement calls for signatures of the U.S. Environmental Protection Agency, State Water Resources Control Board, California Department of Fish and Game, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Resources Agency, California Environmental Protection Agency (Cal/EPA), U.S. Bureau of Land Management, U.S. Bureau of Reclamation, Natural Resources Conservation Service, and U.S. Forest Service.

For more information contact: Tim Vendlinski, Interagency Vernal Pool Initiative, U.S. Environmental Protection Agency at (415) 744-1989.